

SEM Analysis

Metals Result Summary Cover Sheet

Client: Foster Wheeler
Project: Roxanna Marsh
SDG: 920866C

Case Narrative

Client FOSTER WHEELER
Project Name ROXANNA MARSH
Project Number 1980.0208.0100
SDG 920866C
Fraction METALS

Lab Number	Sample ID	Collect Date	Rec Date	Matrix
920866-053	FW-RM-16-CS-0.7-2.0	3/21/2002	3/22/2002	SOIL
920866-054	FW-RM-16-CS-2.0-3.5	3/21/2002	3/22/2002	SOIL
920866-056	FW-RM-06-CS-0.7-2.3	3/21/2002	3/22/2002	SOIL
920866-057	FW-RM-06-CS-2.8-4.7	3/21/2002	3/22/2002	SOIL
920866-058	FW-RM-11-CS-0.7-2.4	3/21/2002	3/22/2002	SOIL
920866-059	FW-RM-11-CS-2.4-4.2	3/21/2002	3/22/2002	SOIL
920866-061	FW-RM-14-CS-0.7-2.0	3/21/2002	3/22/2002	SOIL
920866-062	FW-RM-14-CS-2.0-3.8	3/21/2002	3/22/2002	SOIL
920866-073	FW-RM-16-CS-0.7-2.0MS	3/21/2002	3/22/2002	SOIL
920866-074	FW-RM-16-CS-0.7-2.0MSD	3/21/2002	3/22/2002	SOIL
920866-075	MB4920866			SOIL
920866-076	MB4920866LCS			SOIL
920866-077	MB4920866LCSD			SOIL

METALS
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: ROXANNA MARSHSDG No.: 920866CLab Code: SEMCase No.: 920866C

SAS No.: _____

SOW No.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
FW-RM-16-CS-0.7-2.0	920866-053
FW-RM-16-CS-2.0-3.5	920866-054
FW-RM-06-CS-0.7-2.3	920866-056
FW-RM-06-CS-2.8-4.7	920866-057
FW-RM-11-CS-0.7-2.4	920866-058
FW-RM-11-CS-2.4-4.2	920866-059
FW-RM-14-CS-0.7-2.0	920866-061
FW-RM-14-CS-2.0-3.8	920866-062
FW-RM-16-CS-0.7-2.0MS	920866-073
FW-RM-16-CS-0.7-2.0MSD	920866-074
MB4920866	920866-075
MB4920866LCS	920866-076
MB4920866LCSD	920866-077

Were ICP interelement corrections applied?

Yes/No NO

Were ICP background corrections applied?

Yes/No NO

If yes-were raw data generated before application of background corrections?

Yes/No NO

Comments: All results on SEM QC forms are instrument results in ug/L and have not been put through SEM calculations.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Linda Webb GrayName: Linda Webb GrayDate: 4/29/02Title: QA Auditor

EN CHEM, INC
CASE NARRATIVE – SEM METALS ANALYSIS

Lab Report Number (SDG): 920866C

Client: Foster Wheeler

Project Name: Roxanna Marsh

Project Number: 1980.0208.0100

1. RECEIPT

The samples were received on ice.

2. HOLDING TIMES

- A. **Sample Preparation:** All method - holding times were met.
- B. **Sample Analysis:** All method - holding times were met.

3. METHOD

Preparation: EPA DRAFT

Analysis: EPA DRAFT

4. PREPARATION

Sample preparation proceeded normally.

5. ANALYSIS

- A. **Calibration:**
 - 1. **Initial verification:** All method acceptance criteria were met.
 - 2. **Continuing verification:** All method acceptance criteria were met.
- B. **Blanks:**
 - 1. **Initial calibration:** All method acceptance criteria were met.
 - 2. **Continuing calibration:** All method acceptance criteria were met
 - 3. **Method:** The method blank prepped for Mercury analysis met acceptance criteria. An extraction blank, which has gone through the AVS procedure, met acceptance criteria. Copper and Zinc were detected between the MDL and EQL. Samples are flagged with the "A" data qualifier if the raw amount in the sample was greater than the MDL and less than 20X the raw amount of the blank concentration.
- C. **Spikes:**
 - 1. **Lab Control Spike/Lab Control Spike Duplicate (LCS/LCSD):** All in-house accuracy and precision criteria were met.
 - 2. **Matrix Spike / Duplicate (MS/MSD):** Sample FW-RM-16-CS-0.7-2.0 was designated as the MS/MSD for this SDG. All in-house accuracy and precision criteria were met. Please note all results are based on a post spike analysis for all analyses except for mercury.
- D. **Sample Duplicates:** Not applicable.
- E. **Internal Standards:** Not applicable.
- F. **Interference Check Samples:** All method acceptance criteria were met.
- G. **Serial Dilution:** The method acceptance criteria were met for all analytes except zinc. The parent sample is flagged with the "E" data qualifier.
- H. **Samples:** Sample analyses proceeded normally.
- I. **Dilutions:** None required for this SDG.
- J. **Reanalysis:** None required for this SDG.

K. **Comments:** None.

I certify that this data package is in compliance with the terms and conditions agreed to by **En Chem, Inc.** and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: Linda Webb Gray Date: 4/29/02
Name: Linda Webb Gray Position: Quality Assurance Auditor

Inorganic Data Qualifiers

- A Analyte is detected in the method blank. Method blank criteria are evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample-by-sample basis.
- B The analyte has been detected between the method detection limit and the reporting limit.
- C Elevated detection limit due to matrix effects.
- E Estimated concentration due to matrix interferences. During the metals analysis using the inductively coupled plasma (ICP), the serial dilution failed to meet the established control limits of 0-10% and the sample concentration is greater than 50 times the IDL (100 times the IDL for analysis done on the ICP-MS). The result was flagged with the E qualifier to indicate that a physical interference was observed.
- F Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
- H(n) Preservation or analysis performed "n" days past holding time (See Sample Narrative).
- K Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
- L Elevated detection limit due to low sample volume.
- N Spiked sample recovery not within control limits.
- Q The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
- U The analyte was not detected above the reporting limit.
- X See sample narrative.
- & Laboratory Control Spike recovery not within control limits.
- *
- SUB1 Assay was subcontracted to an approved lab.
- SUB2 Assay was subcontracted to En Chem Green Bay WI Cert. #405132750.
- 1 Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
- 2 Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria. (See Sample Narrative).
- 3 BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
- 4 BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
- 5 BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
- 6 BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
- 7 BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

Company Name: EN CHEM
Branch or Location: D.C.W.
Project Contact: Paul Mass
Telephone: 303-980-3579

EN CHEM
INC.

1241 Bellevue St., Suite 9
Green Bay, WI 54302
920-469-2436
FAX 920-469-5827

525 Science Drive
Madison, WI 53711
608-232-3500
FAX: 608-233-0502

CHAIN OF CUSTODY

Project Number: 1960.0208.002.

Project Name: Examine Marsh

Project State: Indiana

Sampled By (Print): Bob Chapman

Data Package Options
(please circle if requested)
 Results Only
 EnChem Level III (Subject to Surcharge)
 EnChem Level IV (Subject to Surcharge)

PRESERVATION (CODE)*
 *Preservation Codes
A=None B=HCl C=H2SO4 D=HNO3 E=EnCore F=Methanol G=Naph
H = Sodium Bisulfite Solution I = Other

FILTERED? (YES/NO)

TOTAL

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION			MATRIX	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
		DATE	TIME	MATRIX			
920866-047	Fw-Rm-19-cs-20x6	3-21	0821	S	1	Q	4
048	Fw-Rm-19-cs-40x4	3-21	0850	S	1	2	4
049	Fw-Rm-19-cs-20x6	3-21	0850	S	1	2	4
050	Fw-Rm-18-cs-0.7x2.3	3-21	0821	S	1	2	4
051	Fw-Rm-18-cs-2.3x4.3	3-21	0820	S	1	2	4
052	Fw-Rm-18-cs-4.3x4	3-21	Cryo	S	1	2	4
053	Fw-Rm-16-cs-0.7x2.6	3-21	1145	S	1	2	4
054	Fw-Rm-16-cs-2.0x3.5	3-21	1145	S	1	2	4
055	Fw-CM-16-cs-5.3x6.5	3-21	1145	S	1	2	4

Rush Turnaround Time Requested (TAT) - Prelim (Rush TAT subject to approval/surcharge)	Relinquished By: <u>Bob Chapman</u>	Date/Time: 3-21-02 17:05	Received By: <u>Bob Chapman</u>	Date/Time: 3-21-02 17:05	En Chem Project No. <u>920866</u>
Date Needed:	Transmit Prelim Rush Results by (circle):	Date/Time: 3-22-02 (1030)	Received By: <u>Bob Chapman</u>	Date/Time: 3-22-02 1030	Sample Rec'dn Temp. (New/Melted) <u>OK</u>
Phone #:	Phone Fax E-Mail	Received By: <u>Bob Chapman</u>	Received By: <u>Bob Chapman</u>	Date/Time: 3-22-02 1030	Cooley Custody Seal
Fax #:		Received By: <u>Bob Chapman</u>	Received By: <u>Bob Chapman</u>	Date/Time: 3-22-02 1030	Present Not Present
E-Mail Address:	Relinquished By: <u>Bob Chapman</u>	Date/Time: 3-22-02 1030	Received By: <u>Bob Chapman</u>	Date/Time: 3-22-02 1030	Intact Not Intact

Samples on HOLD are subject to special pricing and release of liability

Batch No.

920866

En Chem, Inc. Cooler Receipt Log

Project Name or ID Roxanna MarshNo. of Coolers: 7 Temps: 3, 2, 3, 3, 1, 4, 3 °CA. Receipt Phase: Date cooler was opened: 3/22/02By: RJC

- 1: Were samples received on ice? (Must be ≤ 6 C) YES NO²
 2. Was there a Temperature Blank? YES NO
 3: Were custody seals present and intact? (Record on COC) YES NO
 4: Are COC documents present? YES NO²
 5: Does this Project require quick turn around analysis? YES NO
 6: Is there any sub-work? YES NO
 7: Are there any short hold time tests? YES NO
 8: Are any samples nearing expiration of hold-time? (Within 2 days) YES¹ NO
 9: Do any samples need to be Filtered or Preserved in the lab? YES¹ NO
- B. Check-in Phase: Date samples were Checked-in: 3/22/02 By: RJC
- Contacted by/Who _____
 Contacted by/Who _____

- 1: Were all sample containers listed on the COC received and intact? YES NO² broken lids - see NC NA RJC
 2: Sign the COC as received by En Chem. Completed YES NO
 3: Do sample labels match the COC? YES NO²
 4: Check sample pH of preserved samples. (Not VOCs) Completed YES NO NA
 5: Do samples have correct chemical preservation? YES NO² NA
 6: Are dissolved parameters field filtered? YES NO² NA
 7: Are sample volumes adequate for tests requested? YES NO²
 8: Are VOC samples free of bubbles >6mm YES NO² NA
 9: Enter samples into logbook. Completed YES NO
 10: Place laboratory sample number on all containers and COC. Completed YES NO
 11: Complete Laboratory Tracking Sheet (LTS). Completed YES NO NA
 12: Start Nonconformance form. YES NO NA
 13: Initiate Subcontracting procedure. Completed YES NO NA
 14: Check laboratory sample number on all containers and COC. YES NO NA

Short Hold-time tests:

48 Hours or less	7 days	Footnotes
Coliform (6 hrs)	Flashpoint	1 Notify proper lab group immediately.
Hexavalent Chromium (24 Hrs)	TSS	2 Complete nonconformance memo.
BOD	Total Solids	
Nitrite or Nitrate	TDS	
Low Level Mercury	Sulfide	
Ortho Phosphorus	Free Liquids	
Turbidity	Total Volatile Solids	
Surfactants	Aqueous Extractable Organics- ALL Unpreserved VOC's	
Sulfite	Ash	
En Core Preservation		
Color		

Rev. 9/5/2001, Attachment to 1-REC-5.

Subject to QA Audit.

p:/everyone/forms/samplereceiving/crl.doc

Reviewed by/date MQ 3/25

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/29/2002

Field ID : FW-RM-16-CS-0.7-2.0

Collection Date : 3/21/2002

Lab Sample Number : 920866-053

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	< 0.590	0.590	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.0478	0.959	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.00864	0.639	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0331	1.38	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.336	1.13	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.249	0.347	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.716	0.716	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.313	1.22	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	3.3	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.666	0.666	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	3.47	1.38	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	2.47	1.10	umole/g		04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH
Project Number : 1980.0208.0100
Field ID : FW-RM-16-CS-2.0-3.5
Lab Sample Number : 920866-054
Lab Project Number : 920866

Submitter : FOSTER WHEELER
Report Date : 4/29/2002
Collection Date : 3/21/2002
Matrix Type : SOIL
WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	< 0.421	0.421	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.0200	0.684	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.00166	0.456	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0295	0.985	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.174	0.806	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.0555	0.247	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.511	0.511	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.115	0.873	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	3.4	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.475	0.475	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	0.836	0.985	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	0.435	0.783	umole/g	BAE	04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/29/2002

Field ID : FW-RM-06-CS-0.7-2.3

Collection Date : 3/21/2002

Lab Sample Number : 920866-056

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	< 0.400	0.400	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.0423	0.650	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.00499	0.434	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.118	0.937	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.392	0.767	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.156	0.235	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.486	0.486	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.237	0.830	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	6.1	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.452	0.452	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	2.16	0.937	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	1.20	0.745	umole/g		04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/29/2002

Field ID : FW-RM-06-CS-2.8-4.7

Collection Date : 3/21/2002

Lab Sample Number : 920866-057

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	< 0.305	0.305	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	< 0.497	0.497	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.000740	0.331	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0156	0.715	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.0318	0.585	umole/g	BA	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.0131	0.180	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.371	0.371	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.0412	0.634	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	1.6	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.345	0.345	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	0.292	0.715	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	0.179	0.569	umole/g	BA	04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/29/2002

Field ID : FW-RM-11-CS-0.7-2.4

Collection Date : 3/21/2002

Lab Sample Number : 920866-058

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	0.00718	0.542	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.0713	0.880	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.00693	0.587	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0485	1.27	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.332	1.04	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.234	0.318	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.658	0.658	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.261	1.12	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	8.6	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.611	0.611	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	2.70	1.27	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	1.74	1.01	umole/g		04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/29/2002

Field ID : FW-RM-11-CS-2.4-4.2

Collection Date : 3/21/2002

Lab Sample Number : 920866-059

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	< 0.358	0.358	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.0256	0.581	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.00111	0.388	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0361	0.838	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.149	0.685	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.0676	0.210	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.434	0.434	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.110	0.742	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	4.1	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.404	0.404	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	0.843	0.838	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	0.448	0.666	umole/g	BA	04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/29/2002

Field ID : FW-RM-14-CS-0.7-2.0

Collection Date : 3/21/2002

Lab Sample Number : 920866-061

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	0.0237	0.630	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.133	1.02	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.0324	0.682	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0365	1.47	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.635	1.21	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	1.40	0.370	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.765	0.765	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.439	1.31	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	1.7	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.711	0.711	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	10.2	1.47	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	7.52	1.17	umole/g		04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH
Project Number : 1980.0208.0100
Field ID : FW-RM-14-CS-2.0-3.8
Lab Sample Number : 920866-062
Lab Project Number : 920866

Submitter : FOSTER WHEELER
Report Date : 4/29/2002
Collection Date : 3/21/2002
Matrix Type : SOIL
WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Antimony - SEM	< 0.455	0.455	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Arsenic - SEM	0.0339	0.740	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Cadmium - SEM	0.00111	0.493	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Chromium - SEM	0.0173	1.07	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Copper - SEM	0.170	0.872	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Lead - SEM	0.0453	0.268	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Mercury - SEM	< 0.553	0.553	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Nickel - SEM	0.124	0.945	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
SEM/AVS Ratio	2.6	0.0			04/16/02	EPA DRAFT	EPA DRAFT
Silver - SEM	< 0.514	0.514	umole/g		04/18/02	EPA DRAFT	EPA DRAFT
Simultaneously Extracted Metal	0.680	1.07	umole/g	B	04/18/02	EPA DRAFT	EPA DRAFT
Zinc - SEM	0.281	0.848	umole/g	BA	04/18/02	EPA DRAFT	EPA DRAFT

All soil results are reported on a dry weight basis unless otherwise noted.